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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,730	02/02/2006	Yasuyuki Tanaka	1691-0213PUS1	2171

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EXAMINER	
EASHOO, MARK	

ART UNIT	PAPER NUMBER
1796	

NOTIFICATION DATE	DELIVERY MODE
02/08/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/566,730	TANAKA ET AL.	
	Examiner	Art Unit	
	MARK EASHOO	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cornish (US Pat. 5,580,942) in view of Hamada et al. (JP 2001-122906) as evidenced by Cornish et al. (Enc. Poly. Sci. and Tech., 2004, John Wiley and Sons). For convenience, the citations below are from the English translation of the Japanese reference.

Regarding claim 1, Cornish recites a low allergic natural rubber which is substantially free of any hypoallergenic proteins (i.e. proteins of the band of 14, 31, and 45 kDa) (4:45-64). Cornish et al. teaches the Guayle and Ficus rubbers used in Cornish has proteins between 6.6 kDa and 200 kDa (Figure 8).

Cornish does not teach a deproteinized natural rubber having a nitrogen content of 0.02 to 0.30% by weight of natural rubber. However, Hamada et al. teaches a deproteinized natural rubber with a reduced nitrogen content of less than or equal to 0.1% by weight of the rubber (¶13). Cornish and Hamada et al. are combinable because they are from a similar technical difficulty, namely, making hypoallergenic natural rubbers. At the time of the invention, a person of ordinary skill in the art would have found it obvious to

reduce the nitrogen content in a natural rubber to this level, as taught by Hamada et al. in the natural rubber of Cornish, and would have been motivated to do so because having a nitrogen content of less than or equal to 0.1% is good evidence that the rubber will not cause an allergic reaction (¶14).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cornish (US Pat. 5,580,942) in view of Hamada et al. (JP 2001-122906) as evidenced by Cornish et al. (Enc. Poly. Sci. and Tech., 2004, John Wiley and Sons). For convenience, the citations below are from the English translation of the Japanese reference.

Regarding claim 7, Cornish recites a low allergic natural rubber which is substantially free of any hypoallergenic proteins (i.e. proteins of the band of 14, 31, and 45 kDa) (4:45-64). Cornish et al. teaches the Guayle and Ficus rubbers used in Cornish has proteins between 6.6 kDa and 200 kDa (Figure 8).

Cornish does not teach a deproteinized natural rubber having a nitrogen content of 0.02 to 0.30% by weight of natural rubber. However, Hamada et al. teaches a deproteinized natural rubber with a reduced nitrogen content of less than or equal to 0.1% by weight of the rubber (¶13). Cornish and Hamada et al. are combinable because they are from a similar technical difficulty, namely, making hypoallergenic natural rubbers. At the time of the invention, a person of ordinary skill in the art would have found it obvious to reduce the nitrogen content in a natural rubber to this level, as taught by Hamada et al. in the natural rubber of Cornish, and would have been motivated to do so because having a nitrogen content of less than or equal to 0.1% is good evidence that the rubber will not cause an allergic reaction (¶14).

Claims 3 through 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cornish (US Pat. 5,580,942) in view of Hamada et al. (JP 2001-122906) as evidenced by Cornish et al. (Enc. Poly. Sci. and Tech., 2004, John Wiley and Sons) as applied to claim 1 above, and further in view of Tanaka et al. (US 6,355,407).

Cornish, Hamada et al. and Cornish et al. collectively teach the rubber of claim 1 as shown above.

Regarding claim 3, Cornish does not teach the natural rubber having a green strength of 0.1 to 3 MPa. However, Tanaka et al. teaches a deproteinized natural rubber having a green strength of at least 1 MPa (Col. 10, lines 66-67 and Col. 11, line 1). Cornish and Tanaka et al. are combinable because they are from the same field of endeavor, namely, making hypoallergenic natural rubber. At the time of the invention, a person of ordinary skill in the art would have found it obvious to make the natural rubber, as taught by Cornish, have a green strength of at least 1 MPa, as taught by Tanaka et al., and would have been motivated to do so because a natural rubber having an elevated green strength possesses excellent processing characteristics in kneading and sheeting (Col. 11, lines 5-7).

Regarding claims 4 and 5, Cornish does not teach combining a deproteinized natural rubber with another rubber, more specifically, conventional synthetic rubbers such as SBR, NBR, BR, IR, EPR, EPDM, or IIR. However, Tanaka et al. teaches that a low protein natural rubber can be combined with other common components, specifically, conventional synthetic rubbers, and used as a rubber composition (Col. 11, lines 44-48). At the time of the invention, a person of ordinary skill in the art would have found it obvious to combine the low protein natural rubber, as taught by Cornish, with conventional synthetic rubbers and use it in rubber compositions, as taught by Tanaka et al., and would have been motivated to do so because the low protein natural rubber has excellent processing characteristics (Col. 3, lines 61-62).

Regarding claim 6, Cornish does not teach using the natural rubber in a tire. However, Tanaka et al. teaches using a deproteinized natural rubber in a tire (Col. 11, lines 41-42). At the time of the invention, a person of ordinary skill in the art would have found it obvious to use the low protein natural rubber, as taught by Cornish, in a tire, as taught by Tanaka et al., and would have been motivated to do so because the low protein natural rubber has excellent processing characteristics (Col. 3, lines 61-62).

Response to Arguments

Applicant's arguments with respect to claims 1 and 3-6 have been considered but are moot in view of the new ground(s) of rejection.

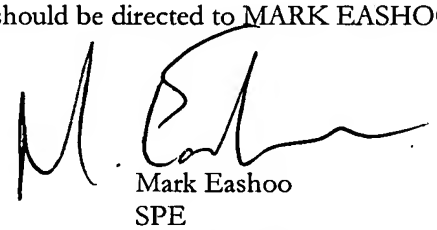
Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

Any inquiry concerning this communication should be directed to MARK EASHOO at telephone number (571)272-1197.



Mark Eashoo
SPE
Art Unit 1796

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